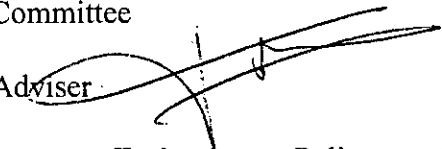


MEMORANDUM

July 26, 2007

TO: Management and Fiscal Policy Committee

FROM: Dr. Costis Toregas, Council IT Adviser 

SUBJECT: Implementation of the Interagency Technology Policy and Coordination Committee's (ITPCC) *Risk and Consequences* report

The Council received a report from ITPCC titled *Risk and Consequences: Long Range Planning and Funding of Major IT Systems* on March 12, 2007. This report inventoried major IT systems in all County agencies and found that more than **\$455 million** will be needed to replace these systems over the next five years; see page 19 of that report on ©1. Note that the column of asset replacement estimates for years through 2005 are not shown on this report, and the total does not include the \$180 million for systems the six-year horizon, thus placing the total replacement value probably close to \$1 billion. Beyond establishing the order of magnitude of large IT systems replacement cost, the report also recommended the use of the County's Capital Improvement Program (CIP) as a way to implement these requirements. Indeed, the major Technology Modernization project which is to fund ERP, CRM and other major MCG systems took this route in the FY08 budget cycle.

The funding for these replacement and upgrade requirements has been assumed to be current revenue. As many of the systems are critical to the County's operations, the extremely high totals for all agencies suggest the need for a non-traditional approach to funding. The ITPCC approved the *Risk and Consequences* report at their February 23, 2007 meeting; explicit suggestions included in this report are summarized on ©2-3. The ITPCC discussed this report and its impact on July 24<sup>th</sup>, but made no subsequent recommendations.

Staff understands that OMB is considering the inclusion of guidance to all County departments to incorporate the *Risk and Consequences* report's process in the upcoming bi-annual CIP process. The use of a three-color system (with red for the most problematic high risk, yellow for medium and green for low risk systems) for establishing priorities and the development of a multi-year cycle for development and implementation of major systems are elements that will require evaluation and support.

Issues the Committee may wish to discuss with the ITPCC include the following:

- The completeness of the original inventory of major IT systems is not confirmed. It is possible that the \$673 million number is actually much higher, as some organizations appear to not have specified all their major systems. However, apart from refining the cost estimate, it is important that consideration be given to **exploring sources and processes for financing such a major requirement.**
- Development and support of **Portfolio Management approaches** that can ensure that each organization is approaching system replacement and upgrade in an effective and efficient manner.
- The **adequacy of our CIP tracking system and budget tools** to track the effective performance of IT projects may have to be **confirmed.** Contrasting physical development efforts, such as construction of schools and infrastructure with complex IT projects using multiple skilled consultants and technology platforms, suggests **that Project Management tools and procedures may have to be upgraded and refined.** The County is already using the CIP process to fund a Technology Modernization project which includes the Enterprise Resource Planning project (ERP), and financial control methods are yet to be understood for that project.
- Consideration of the benefits and disadvantages of **common County wide and agency-wide IT strategies, architecture and applications.** IT costs within the overall County budget could be reduced if that investment is coordinated across departments and agencies. A good example of such a coordinated approach is Fibernet, which has provided all departments and agencies a broadband communication alternative to telecommunications vendor products and at a competitive price. Another is the PC replacement program across all County Government departments, which provides great cost savings because of volume and easier development and support paths because of the standardization.
- Development of a **comprehensive picture of IT investments in hardware, software and personnel** so that true costs can be understood and investments optimized. The County does not currently have a comprehensive picture of all IT investments; therefore their optimization is not easy. Using rough categories such as Personnel, Servers, Data bases, Applications, Licenses, Consultants and Security (illustrative example only), County expenditures could be identified and market packages created for purchasing and then used as an aggregation mechanism to drive down costs as suggested below.
- Consideration of **interdepartmental and interagency procurement of IT.** Many other jurisdictions are able to buy technology goods and services in a collaborative manner within all their departments and agencies, as well as regionally. Organizations like the National Association of Counties (NACo) offer similar purchasing aggregation at the national level. It is sensible to explore similar approaches in Montgomery County, especially in an environment of possibly diminished resources. The Interagency Procurement Coordination Committee has expressed interest in pursuing this effort with the ITPCC, and discussions are underway.

## 6.0 Funding Requirements

Currently, there is no comprehensive and consistent overview of the IT Infrastructure funding requirements that is integrated into budget planning or funding processes, either on an agency specific or countywide basis. The annual ITPCC Program and Budget Overview presentation to the Council each year is the only place where this information is currently presented. It is largely advisory and not integrated into IT planning or budgeting at a macro level. This current approach encourages a 'fix on fail' decision process that is largely reactive and does not focus on the long range requirements. Establishing a firm commitment to sustainable funding for the recurring replacement and upgrades of major IT systems is essential if core business processes are to be adequately supported by technology over the long term. Application of the QEF risk analysis process and use of the templates developed by the workgroup facilitates creation of a comprehensive view of the major systems funding requirements for individual agencies, and for the ITPCC agencies.

Based on the IT "PLAR" totals from each agency, the current estimate for interagency IT infrastructure needs is shown in Table 6, *ITPCC IT Planned Lifecycle Asset Replacement (PLAR) Estimates*<sup>14</sup>. These represent the total planned lifecycle asset replacement estimates for major IT systems (red and yellow) in the ITPCC agencies for the current six-year period. The figures are provided by each agency and represent the estimates computed from the sum of individual projects in each agency<sup>15</sup>. Systems at low risk (green) that should not require major upgrade or replacement in the 6-year planning period are included in the 'Beyond 6-year' column. Nearly all funding sources are current revenues<sup>16</sup>. Since estimated lifecycles for the vast majority of these systems and applications are less than ten years, current revenues are assumed to be the primary source of funding as dictated by current fiscal policies.

TABLE 6: ITPCC IT Planned Lifecycle Asset Replacement (PLAR) Estimates											
EXPENDITURE SCHEDULE (\$000)											
Agency Expenditures	Total	Thru FY05*	Est. FY06	6-Year Total	FY07	FY08	FY09	FY10	FY11	FY12	Beyond 6 Year
MCG-Enterpr.	230,591		7,309	82,435	7,335	16,110	26,260	10,585	13,385	8,760	140,787
MCG-Dept.	91,938		500	82,338	13,723	13,723	13,723	13,723	13,723	13,723	9,100
MCPS	216,925		17,473	191,993	19,163	34,345	36,185	35,128	34,976	32,196	7,459
MC	124,268		12,818	94,100	15,520	15,050	14,550	14,550	17,350	17,350	17,250
MNCPPC	1,317		555	3,322	2,797	175	175	175	0	0	3,500
HOC	2,663		0	930	830	20	20	20	20	20	1,733
<b>Total</b>	<b>673,702</b>	<b>0</b>	<b>38,655</b>	<b>455,118</b>	<b>59,098</b>	<b>79,423</b>	<b>90,913</b>	<b>74,181</b>	<b>79,454</b>	<b>72,049</b>	<b>179,929</b>

\*Note: The "Thru FY05" column is deliberately blank for this display.

## 7.0 Sustainable Funding Strategies

Two suggested approaches to providing sustainable funding levels emerged from the workgroup analysis. One identifies appropriation and funding requirements needed to support a

<sup>14</sup> Based on agency estimates of expenditures for the FY07-12 planning period from PDF summary forms as of January 26, 2007, or data presented to MFP on March 27, 2006.

<sup>15</sup> See Appendix A1-A6 for each agency.

<sup>16</sup> See Appendix M, ITPCC IT Major IT Systems Summary, for funding source estimates.

this and insure that the IT infrastructure requirements remain a priority focus over the long term, and the County Council will need to appropriate the funds.

It is certain that expecting a different outcome while continuing to approach this issue the same way year after year is the definition of futility. The opportunity for change is ours to grasp, or we can continue to accept the risk and consequences of our current practices.

## **10.0 Recommendations**

The ITPCC understands the final outcome will result from actual agency requests, County Executive and Council decisions, and available resources.

1. Adopt a Council Resolution that establishes funding of Major IT infrastructure replacements and upgrades as a policy priority for County government.
2. Adopt the ITPCC recommended guidelines for periodic assessment of the health of major IT systems and applications that evaluates current risks, impacts, and consequences on core business process areas supported. It is recommended that agencies adopt the QEF analysis process, scorecards, Health and Replacement Priority of Existing Major Systems, and PDFs to analyze and report IT infrastructure health and requirements for replacement and major upgrades.
3. Program the IT Infrastructure replacement and upgrade requirements in the Capital Improvements Program (CIP). The CIP will maintain the focus on the ongoing project requirements, multi-year expenditures, funding, and appropriations. It is most compatible with a long term and planned lifecycle approach to major systems replacements and upgrades. It provides a six-year planning model for IT infrastructure based on actual vs. statistically projected requirements like those in the ITPCC Phase II Report.
4. Adopt IT PLAR projects in the CIP for this purpose, but allow discretion by the agencies that prefer discrete projects. Budget and finance information systems can generate aggregate views to produce 'IT PLAR' summaries from agency projects for both agency and countywide views.
5. Update and review the Health of Major IT Systems and Replacement priorities twice per year. The 'Operational Health of Major IT Systems' could be reported to the Council MFP Committee in the fall just prior to CIP and PSP submissions, and spring in coordination with the annual ITPCC Program and Funding overview presentation. The report in the fall could reflect the most current agency priorities for programming expenditures for major IT systems replacements and upgrades and identify systems that will potentially be the subject of appropriation requests. The second report should occur in the spring as part of the annual ITPCC Program and Budget Overview presentation. This report sets the baseline for the next budget year and keeps the six-year requirements in focus for decision makers.
6. Incorporate the Major IT Systems Infrastructure information in the County budgeting processes administered by OMB and agencies to ensure that the multi-year requirements are consistently managed and reported in a manner that maintains the health of the County IT infrastructure over the long term. This should include the automated systems used in the process to ensure that the funding requirements are known, monitored,

projected, and reported as necessary. The ITPCC simply does not have the capability to do this effectively on an ongoing basis.

7. OMB and Council should develop and provide agencies with the necessary guidelines to insure that agencies understand what is required to meet all readiness criteria and submission deadlines associated with developing annual IT infrastructure planned replacements and upgrades requirements.
8. Monitor and revise the implementation of the planned lifecycle asset replacement model for major IT systems to achieve a 'steady-state', sustainable funding level for major IT Infrastructure replacements and upgrades.
9. Pilot this approach initially, preferably over several years with periodic assessments and adjustments as needed.